DOCUMENT RESUME

ED 240 151 TM 840 079

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TITLE South Carolina Statewide Testing Program 1983: Summary Report. Office of Research, Report Series, Volume One/Number 71.
INSTITUTION South Carolina State Dept. of Education, Columbia. Office of Research.
PUB DATE Dec 83
NOTE 37p.; For related documents, see ED 226 063, ED 196 929, ED 166 255, ED 147 334, ED 147 331, and ED 121 847.
PUB TYPE Reports - Research/Technical (143) -- Statistical Data (110)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Academic Achievement; Basic Skills; Disabilities; Educational Planning; Educational Trends; Elementary Secondary Education; Instructional Improvement; Norm Referenced Tests; *State Programs; Testing Problems; *Testing Programs; *Test Interpretation; *Test Results
IDENTIFIERS *Comprehensive Tests of Basic Skills; *South Carolina Statewide Testing Program

ABSTRACT

The primary purpose of the 1983 Statewide Testing Program was to assess the achievement of 4th, 7th, and 10th grade students in South Carolina public schools. The results from the Statewide Testing Program provide educators with information which facilitates the decision-making process at the State, district, and school levels. Besides the adoption of a new test for 1983 (Comprehensive Tests of Basic Skills, Form U), other changes included the administration of only one test level per grade compared to two per grade previously and the inclusion of handicapped data in school, district, and State results. Many cautions concerning interpretation of norm-referenced test results are discussed including content validity problems, inappropriateness of school and district comparisons, the importance of socioeconomic influences on test results, and the dangers inherent in using the grade equivalent score. Three sets of comparisons over the years between 1977 and 1983 show a pattern of improvement and give reason for optimism about public education trends in South Carolina. The majority of the comparisons made for the years 1977 to 1983 were positive. This pattern of progress is encouraging and is viewed as an indication of improvement in the statewide instructional process. (Author/PN)

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South Carolina Statewide Testing Program 1983

Summary Report

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Office of Research Report Series

Volume One / Number 71
South Carolina Department of Education
Charlie G. Williams, State Superintendent

TM 840 079

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SOUTH CAROLINA STATEWIDE TESTING PROGRAM 1983

SUMMARY REPORT

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December, 1983

THE OFFICE OF RESEARCH REPORT SERIES

SOUTH CAROLINA STATEWIDE TESTING PROGRAM 1983

SUMMARY REPORT

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TABLE OF CONTENTS

	Page
LIST OF TABLES	v
PREFACE	vi
ABSTRACT	vii
QUESTIONS	
WHAT IS THE STATEWIDE TESTING PROGRAM?	1
WHAT ARE THE PURPOSES OF THE STATEWIDE TESTING PROGRAM?	1
WHAT ARE SOME CAUTIONS CONCERNING THE INTERPRETATION OF TEST RESULTS?	2
SHOULD THE RESULTS OF THE 1983 STATEWIDE TESTING PROGRAM BE COMPARED WITH THE RESULTS OF PREVIOUS YEARS?	3
WHO PARTICIPATED IN THE 1983 STATEWIDE TESTING PROGRAM?	4
WHAT TEST WAS USED IN THE 1983 STATEWIDE TESTING PROGRAM?	4
WHAT WERE THE MAJOR CHANGES IN THE 1983 STATEWIDE TESTING PROGRAM?	6
WHAT SCORE REPORTS ARE PROVIDED FOR THE STATEWIDE TESTING PROGRAM?	7
WHICH QUESTIONS DO THE CTBS/U RESULTS HELP TO ANSWER?	8
HOW DID THE 1983 PERFORMANCE OF STUDENTS IN SOUTH CAROLINA COMPARE WITH THE PERFORMANCE OF STUDENTS IN THE NATION?	8
HOW DID THE 1983 ACHIEVEMENT OF SOUTH CAROLINA STUDENTS COMPARE ACROSS GRADES?	11
HOW DID SOUTH CAROLINA STUDENTS PERFORM ON THE CTBS DURING THE YEARS FROM 1977 THROUGH 1983?	12

TABLE OF CONTENTS
(continued)

Page

APPENDICES

A Handicapped Student Participation in the South Carolina Statewide Testing Program 18

B Summary of the Results of the 1983 South Carolina Statewide Testing Program 20

C CTBS/U Spring, 1983, State Median National Percentiles and Percentile Differences for Grades 4, 7, and 10 24

LIST OF TABLES AND FIGURE

Page

TABLES

1 CTBS/U Score Reports and Test Scores 7

2 Median National Percentiles for South Carolina, Grade 4 9

3 Median National Percentiles for South Carolina, Grade 7 10

4 Median National Percentiles for South Carolina, Grade 10 11

5 Grade Levels and Tests Administered During Last Seven Years 13

6 Comparison of Performance in Grades 3, 6, and 11 in 1977 with Performance in 1980, CTBS/S 14

7 Comparison of Performance in Grades 3 and 6 with Later Performance, CTBS/S, All Students 15

8 Comparison of CTBS/U 1982 and 1983 Median National Percentiles for Grades 4, 7, and 10 16

FIGURE

1 Median National Percentiles for Grades 4, 7, and 10, South Carolina CTBS/U, 1983 12

PREFACE

This summary report is intended to provide answers to questions that local school personnel and others may have about the 1983 South Carolina Statewide Testing Program. These questions primarily center on the operation and results of the Statewide Testing Program.

ABSTRACT

The primary purpose of the 1983 Statewide Testing Program was to assess the achievement of 4th, 7th, and 10th grade students in South Carolina public schools. The results from the Statewide Testing Program provide educators with information which facilitates the decision-making process at the State, district, and school levels.

For the first time, Form U of the Comprehensive Tests of Basic Skills was the instrument used to measure achievement in the skill areas of Reading, Spelling, Language, Mathematics, Reference Skills, Science, and Social Studies. The basis on which the test selection committee selected the CTBS/U and the precautions needed when comparing the CTBS/U with the older CTBS/S are included in this report.

Besides the adoption of a new test for 1983, other changes included the administration of only one test level per grade compared to two per grade previously and the inclusion of handicapped data in school, district, and State results.

Many cautions concerning interpretation of norm-referenced test results are discussed including content validity problems, inappropriateness of school and district comparisons, the importance of socioeconomic influences on test results, and the dangers inherent in using the grade equivalent score.

All 92 South Carolina school districts participated in the 1983 Statewide Testing Program at all three grade levels. Tested as part of the 1983 Statewide Testing Program during the middle of April were 137,247 South Carolina 4th, 7th, and 10th graders. At Grade 4, 44,638 students were tested; at Grade 7, 49,464 students were tested; and, at Grade 10, 43,145 students were tested.

Three sets of comparisons over the years between 1977 and 1983 show a pattern of improvement and give reason for optimism about public education trends in South Carolina. The majority of the comparisons made for the years 1977 to 1983 were positive. This pattern of progress is encouraging and is viewed as an indication of improvement in the statewide instructional process. As more instructional and curricular programs take effect, a continuation of this trend towards improved education for our public school students is envisioned.

WHAT IS THE STATEWIDE TESTING PROGRAM?

The South Carolina Statewide Testing Program is designed to assess the achievement of students in South Carolina public schools. The State Department of Education through the Educational Assessment Section, Office of Research, is responsible for coordinating the Statewide Testing Program at the State level, while the District Test Coordinator is responsible for coordinating the Statewide Testing Program at the local level. The actual administration of the tests to the students is conducted by classroom teachers.

The groundwork for the Statewide Testing Program was laid in accordance with the federal regulations for Title III of the Elementary and Secondary Education Act during the Year 1970-71. The regulation stated:

> The State Plan shall set forth a program for testing students in the elementary and secondary schools of the state ... which describes the means of testing, including the types of tests and grade levels of students.

The South Carolina State Plan provided for testing of student achievement at grade levels designated by the State Department of Education. The Comprehensive Tests of Basic Skills, Form S (CTBS/S), was adopted by the Department as the achievement test to be administered in the 1973-74 Statewide Testing Program; and the use of the CTBS/S was continued through the 1982 Statewide Testing Program. The test used in 1983 was the Comprehensive Tests of Basic Skills, Form U, (CTBS/U) which differs from Form S in both content and norming groups. (Information about the test change is provided in a later section.) District participation in the program became mandatory with the enactment of the Education Finance Act of 1977.

WHAT ARE THE PURPOSES OF THE STATEWIDE TESTING PROGRAM?

The primary purpose of the Statewide Testing Program is to provide a means of monitoring student achievement in South Carolina schools. Specifically, the program provides information on monitoring student achievement by focusing on the following objectives.

1. To compare the achievement of 4th, 7th, and 10th grade students in South Carolina with the achievement of 4th, 7th, and 10th grade students in the nation, using the national normative data provided by the test publisher.

2. To provide a measure of student achievement in the skill areas of Reading, Spelling, Language, Mathematics, Reference Skills, Science, and Social Studies in Grades 4, 7, and 10.
3. To provide one indicator of the educational output of South Carolina public schools.
4. To encourage effective utilization of test data in guidance and instructional programs in Grades 4, 7, and 10, including monitoring progress toward meeting appropriate instructional objectives.

These objectives were originally established in 1970-71 as part of the 4th grade testing program. However, they have been modified over the past thirteen years to reflect the yearly changes in the testing program.

Equally important, the test results provide educators with information which facilitates the decision-making process at the State, district, and school levels. Concurrently, the Statewide Testing Program provides a service to districts in that the program funds relieve a portion of the financial burden of the district testing programs and, in many districts, constitutes a major part of districtwide testing programs. Since the spring administration of the program coincides with Chapter I testing, the testing program further services districts by supplementing testing for Chapter I program evaluations.

WHAT ARE SOME CAUTIONS CONCERNING THE INTERPRETATION OF TEST RESULTS?

There are a number of cautions which should be mentioned concerning the interpretation of norm-referenced test results. Norm-referenced testing is designed to allow educators to make comparisons between students or groups of students. For this reason, the test questions measure global or national instructional targets rather than more specific local objectives. Therefore, the possibility is strong that the test may cover content which is taught at a grade level other than the one tested in some schools. Other content may not be taught in a particular school, at least in the manner tested. These possible content validity problems should be taken into account when interpreting test results.

A second caution relates to frequent misuse of standardized test data, namely, the inclination among users of the data to equate high test scores with educational quality. Practitioners must remember that test data constitute a single type of information that must be used in conjunction with other pieces of information to evaluate educational quality. For example,

entry characteristics of students such as socioeconomic background and educational level of parents are strongly related to test performance. Therefore, comparisons of scores among schools and/or districts should not be made unless differences in the populations of students are considered as a part of the comparison.

A third caution relates to differences between the norming sample and the South Carolina student populations. Key socioeconomic indicators including adult literacy rate and average annual income are factors that relate to test achievement. Achievement test data will of necessity be influenced by these factors.

A fourth caution relates to the grade equivalent score, which is as easy to abuse as it is to use. The most common abuse of grade equivalents is to equate the score to grade level performance. If a 7th grade student obtains a grade equivalent score of 9.0 in the Spring on Level H of the CTBS/U, the results can only mean that the student is substantially above average compared to other 7th graders. A frequent misuse of the data would be to label the student as a 9th grade achiever which is a misinterpretation since the student did not take a 9th grade test. Another problem with the grade equivalent score is that the value of the score fluctuates considerably as a function of the raw score. An increase in one raw score point can mean an increase of as little as 0.1 grade equivalent or as much as 1.6 grade equivalents depending on the subtest under consideration. This relationship between the raw score and the grade equivalent should be considered in the interpretation of grade equivalents. Therefore, the Department recommends avoiding grade equivalents and using national percentiles.

A fifth and final caution relates to comparing the 1983 test results with those from previous years. This caution is discussed in the following section.

SHOULD THE RESULTS OF THE 1983 STATEWIDE TESTING PROGRAM BE COMPARED WITH THE RESULTS OF PREVIOUS YEARS?

The results of the 1983 Statewide Testing Program are not directly comparable with the results from previous years because the new test, the CTBS/U, has a different norming group and contains different test content. Although conversion tables are available to convert the earlier CTBS/S results to CTBS/U results, these conversions are approximations only. Therefore, if scores are converted for purposes of comparisons across years, these results

should be viewed as estimations of student performance; otherwise, incorrect conclusions could be drawn about the progress of student achievement over the years.

In a later section of this report, the statewide results are compared across years using conversion tables. Districts and schools may wish to refer to these results when attempting to make similar comparisons.

WHO PARTICIPATED IN THE 1983 STATEWIDE TESTING PROGRAM?

For the third consecutive year, the State Department of Education designated Grades 4, 7, and 10 as the grades to be tested in the 1983 Statewide Testing Program. All 92 South Carolina school districts participated in the testing program at Grades 4, 7, and 10 as required by the South Carolina Educational Finance Act of 1977.

Students enrolled in programs for the handicapped were included in the Statewide Testing Program unless their Individual Education Plans (IEP's) indicated that their participation would be inappropriate. Refer to Appendix A for a more lengthy discussion of the participation of handicapped students in the testing program.

As part of the 1983 Statewide Testing Program, 137,247 South Carolina 4th, 7th, and 10th grade students were tested: 44,638 students at the 4th grade level, 49,464 at the 7th grade level, and 43,145 students at the 10th grade level.

WHAT TEST WAS USED IN THE 1983 STATEWIDE TESTING PROGRAM?

For the first time, Form U of the Comprehensive Tests of Basic Skills, (CTBS/U), published by CTB/McGraw-Hill, was used in the 1983 Statewide Testing Program. The CTBS/U was administered to measure student achievement in the areas of Reading, Spelling, Language, Mathematics, Reference Skills, Science, and Social Studies. Level F of the CTBS/U was administered in Grade 4; Level H of the CTBS/U was administered in Grade 7; and Level J of the CTBS/U was administered in Grade 10.

There were two reasons for the decision to select a new norm-referenced test. First and foremost, the CTBS/S was normed in 1973 and was out of date. Second, since the test had been used statewide for eight years, local personnel were very familiar with individual test item content. This over-familiarity with the test content threatened the validity of the test results.

The selection of CTBS/U was made on the basis of recommendations by an ad hoc test selection committee in early 1982. Subcommittees made up of district and school personnel and Department staff examined six of the most commonly used national norm-referenced tests. Reviewers evaluated the tests on the basis of relevance to Basic Skills Assessment Program (BSAP) and non-BSAP skills, test item bias, diversity of content/skills assessed, item readability, administration procedures, and other criteria. On the basis of these criteria, the CTBS/U received the highest overall ratings by the committee. Subsequently, based on the committee's recommendation, the South Carolina Department of Education selected CTBS/U as the test for the Statewide Testing Program.

In addition to new norming tables and different test items, the CTBS/U is somewhat different from the CTBS/S in the composition of the test. The first difference is the separation of the Spelling Test from the set of Language tests. On the CTBS/U, the Spelling Test is no longer part of Language Total but a separate test on the order of Science or Social Studies. A second difference between the CTBS/U and the CTBS/S is the computation of the Battery Total score. The Battery Total on the CTBS/S was computed and normed as a separate test, utilizing the individual items from Reading Total, Language Total, and Mathematics Total. However, the CTBS/U Battery Total score is compiled by averaging the Reading Total, Language Total, and Mathematics Total. The difference in the calculation of the Battery Total adds yet one more obstacle to the comparison of the 1983 results with the results from previous years.

Scores are reported on six subtests, seven total tests, and Battery Total for the CTBS/U; whereas, scores were reported on eight subtests, six total tests, and Battery Total for the CTBS/S. The different tests and subtests measured by the CTBS/U as compared to CTBS/S are listed below.

CTBS/U	CTBS/S
Reading Vocabulary Subtest	Vocabulary Subtest
Reading Comprehension Subtest	Reading Comprehension Subtest
Reading Total	**Reading Total**
Spelling Test	Spelling Subtest
Language Mechanics Subtest	Language Mechanics Subtest
Language Expression Subtest	Language Expression Subtest
Language Total	**Language Total**
Mathematics Computation Subtest	Mathematics Computation Subtest
Mathematics Concepts and Applications Subtest	Mathematics Concepts Subtest
	Mathematics Applications Subtest
Mathematics Total	**Mathematics Total**
Battery Total	**Battery Total**
Reference Skills	**Reference Skills**
Science	**Science**
Social Studies	**Social Studies**

WHAT WERE THE MAJOR CHANGES IN THE 1983 STATEWIDE TESTING PROGRAM?

As previously discussed, the major change which occurred in the 1983 Statewide Testing Program was the adoption of the new test, the Comprehensive Tests of Basic Skills, Form U (CTBS/U). Another change was the move to administer only one test level in each grade rather than attempting to use two different test levels. Finally, handicapped student test scores were included for the first time in school district and state results. Because the norming group of the CTBS/U included handicapped children, the inclusion of handicapped data in the group results was deemed appropriate. The inclusion of these scores in group results is consistent with the policy implemented in the Basic Skills Assessment Program. However, as a consequence of the inclusion of handicapped data, local school officials should be forewarned that those schools which service large numbers of handicapped students could experience a seemingly large decline in test scores relative to last year's results.

WHAT SCORE REPORTS ARE PROVIDED FOR THE STATEWIDE TESTING PROGRAM?

The results of the 1983 Statewide Testing Program were provided for individual students, classes, schools, districts, and the State in the form of CTBS/U score reports. The test scores on the CTBS/U score reports are explained in the CTBS/U Examiner's Manual (one manual for all levels).. Table 1 presents an overview of the score reports provided. The X's in the table indicate the various types of test scores that were included on these CTBS/U score reports.

Table 1

CTBS/U Score Reports and Test Scores

Score Report	Scores[a]										
	RS	SS	NP	LP	NQ	NS	GE	NCE	%R	%W	%O
Individual Test Record	X	X	X	X		X			X[b]	X[b]	
Individual Test Record and Home Report			X	X							
Class Record Sheet		X	X	X		X	X				
Right Response Summary and Item Analysis								X	X	X	
Frequency Distributions		X	X	X	X						
Evaluator's Summary		X	X		X[c]		X	X			

[a] RS = Raw Score
SS = Scale Score
NP = National Percentile
LP = Local Percentile*
NQ = National Quarters
NS = National Stanine
GE = Grade Equivalent
NCE = Normal Curve Equivalent
%R = Percent of Items Answered Right
%W = Percent of Items Answered Wrong
%O = Percent of Items Omitted

*NOTE: The LP is the district percentile if reported on the Local Percentile Frequency Distribution and the school percentile if reported on the Individual Test Record, Individual Test Record Home Report, and Class Record Sheet.

[b] The number of items correct and total items by category are furnished on the Individual Test Record.

[c] In addition to the percentage of students in each quarter, the percentages of students in the upper half of the national distribution are provided on the Evaluator's Summary.

WHICH QUESTIONS DO THE CTBS/U RESULTS HELP TO ANSWER?

The CTBS/U results can be used by district and school personnel to help answer the following questions.

1. How does the achievement of an individual student in a given grade compare with the grade level achievement of the class, the school, the district, the State, or the nation?
2. How does the achievement of a class at a given grade compare with the grade level achievement of the school, the district, the State, or the nation?
3. How does the achievement of a school in a given grade compare with the grade level achievement of the district, the State, or the nation?
4. How does the achievement of students in a given grade in the district compare with the grade level achievement of students in the State or in the nation?
5. In which content or skill area of the CTBS/U is achievement weakest or strongest relative to the norm group?

In the next three sections of this report, the statewide results are used to provide answers to the following questions.

1. How did the 1983 performance of students in South Carolina compare with the performance of students in the nation?
2. How did the 1983 achievement of South Carolina students compare across grades?
3. How did South Carolina students perform on the CTBS during the years from 1977 through 1983?

HOW DID THE 1983 PERFORMANCE OF STUDENTS IN SOUTH CAROLINA COMPARE WITH THE PERFORMANCE OF STUDENTS IN THE NATION?

For each of the three grade levels tested in the 1983 South Carolina Statewide Testing Program, comparisons can be made between the performance of students in South Carolina and the performance of students in the nation. In this section, South Carolina 1983 Spring test scores for the skill areas at each grade level are compared to national test scores using median national percentiles. Because the CTBS/U is a new statewide test, the 1983 test results represent a new baseline for South Carolina. The statewide results are presented in Appendix B.

1983 Student Performance in Grade 4

In Table 2, the 1983 Spring median national percentiles for Grade 4 students in South Carolina are presented.

Table 2

Median National Percentiles for South Carolina

Grade 4

Skill Area	1983 State Median	National Median
Reading Total	42.2	50.0
Spelling	43.0	50.0
Language Total	46.1	50.0
Mathematics Total	44.2	50.0
Battery Total	43.6	50.0
Reference Skills	49.6	50.0
Science	42.4	50.0
Social Studies	41.2	50.0

The median or middle score for the national group is the 50th national percentile. For example, the median national percentile reported for Reading Total indicates that the middle score for South Carolina 4th grade students was similar to the 42nd national percentile score. If the performance of South Carolina 4th grade students had been at or above the 50th national percentile, the median score for South Carolina 4th graders would have been at or above the national average in Reading Total.

As indicated in Table 2, the 1983 performance of South Carolina 4th grade students was below the national median for all skill areas and Battery Total. Relative to the nation, 4th grade performance was strongest in the skill area of Reference Skills, with a median national percentile of 49.6. The skill areas of Language Total, Mathematics Total, and Spelling followed, with median national percentiles of 46.1, 44.2, and 43.0, respectively. Scores indicating slightly weaker performance included Science, Reading Total, and Social Studies, with median national percentiles of 42.4, 42.2, and 41.2, respectively. The median national percentile for Battery Total was 43.6.

1983 Student Performance in Grade 7

The median national percentiles for South Carolina Grade 7 students are presented in Table 3.

Table 3

Median National Percentiles for South Carolina

Grade 7

Skill Area	1983 State Median	National Median
Reading Total	40.9	50.0
Spelling	48.5	50.0
Language Total	43.8	50.0
Mathematics Total	44.5	50.0
Battery Total	41.8	50.0
Reference Skills	42.0	50.0
Science	49.7	50.0
Social Studies	47.5	50.0

Table 3 presents the 1983 Spring performance of South Carolina 7th grade students. Skill areas close to the national median included Science, Spelling, and Social Studies with median national percentiles of 49.7, 48.5, and 47.5, respectively. The median national percentile for Mathematics Total was 44.5, and the median national percentile for Language Total was 43.8. Reference Skills and Reading Total, with median national percentiles of 42.0 and 40.9, respectively, were slightly weaker skill areas of performance. The median national percentile for Battery Total was 41.8. As in the 4th grade, although 7th grade performance was below the national median in all skill areas, the results in several areas were just below the national median and the remaining areas approached the national median.

1983 Student Performance in Grade 10

The median national percentiles for South Carolina 10th graders are presented in Table 4.

Table 4

Median National Percentiles for South Carolina

Grade 10

Skill Area	1983 State Median	National Median
Reading Total	33.2	50.0
Spelling	42.8	50.0
Language Total	39.7	50.0
Mathematics Total	40.7	50.0
Battery Total	37.9	50.0
Reference Skills	32.3	50.0
Science	42.2	50.0
Social Studies	45.9	50.0

As indicated in Table 4, South Carolina 10th grade students scored below the median national percentile in all skill areas. Relative to the nation, the 1983 Spring performance for South Carolina 10th graders was strongest in the skill areas of Social Studies, Spelling, and Science, with median national percentiles of 45.9, 42.8, and 42.2, respectively. The median national percentile for Mathematics Total was 40.7, and the median national percentile for Language Total was 39.7. Reading Total and Reference Skills with median national percentiles of 33.2 and 32.3, respectively, were the weakest skill areas of performance. The median national percentile for Battery Total was 37.9.

HOW DID THE 1983 ACHIEVEMENT OF SOUTH CAROLINA STUDENTS COMPARE ACROSS GRADES?

Figure 1 depicts graphically the 1983 Spring median national percentiles for students in Grades 4, 7, and 10 in South Carolina. This figure provides

a way to compare student performance across Grades 4, 7, and 10 for the key skill areas of Reading, Language, Mathematics, and Battery Total. The data corresponding to the histograms are provided in Appendix C, along with the percentile differences between grades.

Performance in Grades 4 and 7 more closely approximated the national performance than did performance in Grade 10. For the skill areas of Reading, Language, and Mathematics, performance in Grades 4 and 7 was at the 40th national percentile or higher. Student performance was closest to the 50th national percentile at Grade 4 in the skill area of Reference Skills and at Grade 7 in the skill area of Science. However, performance in Grade 10 was considerably lower than performance in Grade 7.

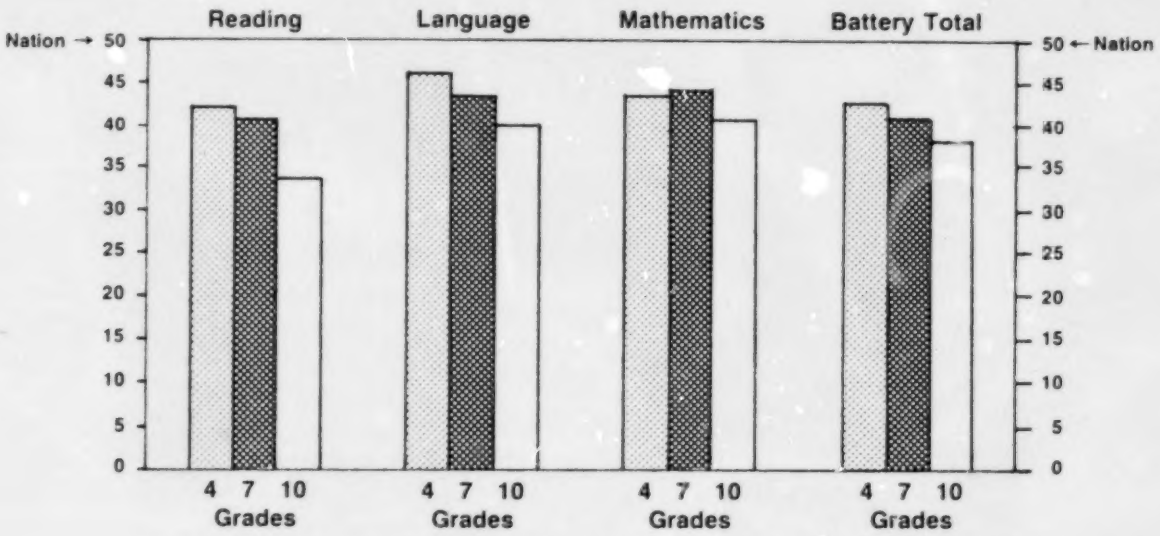

Figure 1. Median National Percentiles for Grades 4, 7, and 10 South Carolina CTBS/U, 1983

HOW DID SOUTH CAROLINA STUDENTS PERFORM ON THE CTBS DURING THE YEARS FROM 1977 THROUGH 1983?

For the last three years (1981, 1982, and 1983), the Statewide Testing Program was administered to all public school students in Grades 4, 7, and 10 in South Carolina. For the four years before 1981 (1977 through 1980), the Statewide Testing Program was administered to students in Grades 3, 6, and 11. These four years from 1977 to 1980 was the longest time period when the same form of the CTBS/S was administered to the same grades. During the next two years beginning with 1981 (1981 and 1982), while the same form of the CTBS was

used, the grade level populations changed. The pattern of test administration across years and grades is shown in Table 5.

Table 5

Grade Levels and Tests Administered During Last Seven Years[a]

Year	Grades											
	1	2	3	4	5	6	7	8	9	10	11	12
1977			S			S					S	
1978			S			S					S	
1979			S			S					S	
1980			S			S					S	
1981				S			S			S		
1982				S			S			S		
1983				U			U			U		

[a]S = CTBS, Form S (1973 edition)
U = CTBS, Form U (1981 edition)

Repeated use of test forms over years allows longitudinal comparisons for all tests and all grades using data from 1977-1980, as well as longitudinal comparisons for all tests and certain grades using data from 1977-1982. However, longitudinal comparisons can only be made for certain tests between 1982 and 1983 because of changes in the norming populations, test structure, and test content. For these reasons, the comparisons can only provide approximations of student progress.

Within Grade Comparisons for 1977 through 1980

When student performance from 1977 to 1980 is compared within grades, performance among South Carolina students in Grades 3 and 6 shows measurable progress, as indicated in Table 6. Increased percentages above the 50th national percentile for 3rd graders between 1977 and 1980 include +5.9

percentage points in Reading, +6.6 points in Language, and +8.3 points in Mathematics. Improvements of the same magnitude were realized in Grade 6: +5.8 percentage points in Reading, +4.8 points in Language, and +7.4 points in Mathematics. The increases were not as large at Grade 11 over the four years: +0.9 points in Language, and +2.0 points in Mathematics. In Grade 11 Reading, student performance decreased 0.8 points from 1977 to 1980.

Table 6

Comparison of Performance in Grades 3, 6, and 11 in 1977 with Performance in 1980, CTBS/S

All Students

	Differences in the 50th NP[a]		
Skill Area	Grade 3	Grade 6	Grade 11
Reading	+5.9	+5.8	-0.8
Language	+6.6	+4.8	+0.9
Mathematics	+8.3	+7.4	+2.0

[a]These differences were calculated by subtracting the percentage above the 50th NP in 1977 from the percentage above the 50th NP in 1980 for each grade level and skill area.

Between Grade Comparisons for 1977 through 1982

Comparisons between grades can also be made for certain grades based upon data from the six years prior to 1983, 1977 through 1982. Data from comparisons between 3rd and 6th graders tested between 1977 and 1980 and comparisons among 4th, 7th, and 10th graders tested in 1981 and 1982 presented a unique opportunity to compare the same student populations on two tests over a period of time. For example, a typical comparison would be between 6th graders in 1980 and the same student population as 7th graders in 1981. Table 7 presents six of these comparisons. Of the 18 comparisons across grades and years presented in Table 7, 13 comparisons indicate an increase in the Reading, Language, and Mathematics test scores over previous years. Students appear to be progressing in all three areas from Grades 3 to 4, Grades 3 to 6, and Grades 6 to 7, as indicated by the increases in 11 of

the 12 comparisons. However, between Grades 6 and 10 for both 1977 to 1981 and 1978 to 1982, student performance dropped slightly in Reading and Mathematics but improved in Language.

Table 7

Comparison of Performance in Grades 3 and 6 with Later Performance, CTBS/S

All Students

Test	Grade 3, 1980 to Grade 4, 1981	Grade 3, 1977 to Grade 6, 1980	Grade 6, 1980 to Grade 7, 1981	Grade 3, 1978 to Grade 7, 1982	Grade 6, 1977 to Grade 10, 1981	Grade 6, 1978 to Grade 10, 1982
Reading	+1.0	+2.9	+1.9	+3.6	-0.3	-1.4
Mathematics	+2.5	+3.2	-1.4	+1.7	-2.0	-2.6
Language	+1.8	+3.2	+6.4	+7.9	+5.7	+4.0

Within Grade Comparisons for 1982 and 1983

Because of varying normative groups, test content, and difficulty levels of the tests, conversion tables have been developed by the test publisher to convert the Form S results to their approximate equivalents for Form U. Table 8 contains such conversions for the 1982 median national percentiles for the areas of Reading, Language, and Mathematics. The table also contains the 1983 CTBS/U results and differences between the 1983 data and the 1982 Form U estimates. Although the conversions should be viewed as approximations, this procedure provides a reasonable method for making a one time transition between the two tests and for examining estimates of changes of performance between 1982 and 1983 within grades. Future comparisons will be made against the 1983 data.

Table 8

Comparison of CTBS/U 1982 and 1983
Median National Percentiles for Grades 4, 7, and 10

Grade	Test[a]	CTBS/U, 1982[b]	CTBS/U, 1983	Difference[c]
4	Reading Total	43	42.2	-0.8
	Language Total[d]	40	46.1	+6.1
	Mathematics Total	41	44.2	+3.2
7	Reading Total	40	40.9	+0.9
	Language Total[d]	42	43.8	+1.8
	Mathematics Total	44	44.5	+0.5
11	Reading Total	27	33.2	+6.2
	Language Total[d]	40	39.7	-0.3
	Mathematics Total	35	40.7	+5.7

[a]Although Battery Total conversions were also available, these data were not reported because the Battery Total score on CTBS/U was computed by averaging the Reading, Language, and Mathematics Tests; whereas, CTBS/S Battery Total scores were obtained by treating items from all three tests as a different test. Conversions are unavailable for other CTBS/U tests.

[b]The CTBS/U national percentiles were determined by converting CTBS/S scores to CTBS/U scores.

[c]These differences were calculated by subtracting converted 1982 scores from 1983 scores.

[d]Language Total on the CTBS/U is comprised of one less subtest than Language Total on the CTBS/S of 1982. The CTBS/U does not include Spelling in Language Total and reports Spelling as a separate test. This difference further compromises the conversion approximation for Language Total.

Of the nine approximate comparisons in Table 8, note that seven of the comparisons are in a positive direction, indicating improved performance in 1983 over the previous year. The two negative comparisons, -0.3 and -0.8, are so small that they are considered to be statistically the same as the previous year's data. Consequently, a general trend of improvement is evidenced across all three grades between 1982 and 1983.

As indicated earlier, the data from the 1982 Spring administration of the CTBS/S are not directly comparable to the results of the 1983 Spring administration of the CTBS/U since some of the test content and the comparison groups for the test are different. The old form of the test (CTBS/S) provided comparisons with a norming group which took the test in 1973. The new form of the test (CTBS/U) provides comparisons with a group that took the test in 1981. Attempts to make direct comparisons of the 1982 and 1983 data would, in most cases, result in apparent declines in the performance of South Carolina students even though their achievement has been consistently improving for several years. The apparent declines result from the fact that the achievement of students in other parts of the nation has also been improving, and this improvement is reflected in the performance of the comparison or normative group that took the test in 1981.

Summary

These CTBS test results over the past seven years show a pattern of improvement and should give cause for optimism about public education trends in South Carolina. The comparisons between 1977 and 1980 for Grades 3, 6, and 11 in Table 6, the comparisons between 1977 and 1980 for similar groups of students in Table 7, and the approximate comparisons between 1982 and 1983 in Table 8 indicate a pattern of progress in student performance. This progress is underscored by the number of comparisons that indicate improved scores over the years. Eight out of nine comparisons between the 1977 and 1980 data in Table 6 are positive, 13 out of 18 comparisons from Table 7 are positive, and seven out of nine comparisons from Table 8 data are positive. Therefore, twenty-eight (28) of the 36 Reading, Language, and Mathematics comparisons from the three tables are positive.

Generally, performance on CTBS/S and CTBS/U at the earlier Grades of 3, 4, 6, and 7 increased from 1978 through 1983 in the areas of Reading, Language, and Mathematics. However, the comparisons involving Grades 10 and 11 indicate that test scores for Grades 10 and 11 from 1977 through 1983 essentially held steady. Nevertheless, improvement in Reading and Mathematics is suggested in Grade 10 by the 1983 student performance. These patterns of progress are encouraging and are viewed as indications of improvement in the statewide instructional process. As more instructional and curricular programs take effect, a continuation of this trend towards improved education for our public school students is envisioned.

APPENDIX A

HANDICAPPED STUDENT PARTICIPATION IN THE SOUTH CAROLINA STATEWIDE TESTING PROGRAM

HANDICAPPED
STUDENT PARTICIPATION IN THE STATEWIDE TESTING PROGRAM

All students in Grades 4, 7, and 10 shall participate in the Statewide Testing Program. Since denying **all** handicapped children participation (AS A CLASS) in the Statewide Testing Program may constitute a denial of their civil rights, decisions regarding handicapped students must be made on an individual basis. Since each handicapped child must have an Individualized Education Plan (IEP) which specifies the special education and/or related services that the child shall receive, the IEP should be referred to in determining if the child should participate in the Statewide Testing Program. Most handicapped students should probably be excluded from such testing programs. They have already been fully evaluated as a condition for entry into special education programs. However, if the IEP does not exclude participation in the testing program, then participation is required. In the event that IEP revision is required for this purpose, all procedural aspects of this action must be in accordance with the requirements of P. L. 94-142. The District Test Coordinator is responsible for making provisions for any special arrangements or conditions necessary for testing handicapped children. The Department supplies large print editions of the test for those students in Grades 4, 7, and 10 for whom large print editions are required. The department does not provide large print editions for students in grades not covered by the Statewide Testing Program.

Children who are vision or speech handicapped tend to have a unitary handicapping condition; that is, manifestations of these handicaps frequently do not impact on other learning processes. Therefore, accommodations can be made for them in the testing situation. Children with cognitive, affective, and some physical handicaps often possess a variety of handicaps which cannot be reasonably accommodated for via this testing.

Further information on handicapped participation was provided to districts in the memorandum of August 13, 1981, which included the paper, "Participation of Handicapped Children in South Carolina's Testing Programs -A Technical Assistance Paper," by Dr. Paul D. Sandifer and Dr. Robert S. Black. These documents were mailed to Superintendents, Coordinators of Programs for the Handicapped, and District Test Coordinators.

APPENDIX B

SUMMARY OF THE RESULTS OF THE 1983 SOUTH CAROLINA STATEWIDE TESTING PROGRAM

Table B.1

CTBS/U Spring, 1983, Median Grade Equivalents, Mean Scale Scores, and Median National Percentiles
All Students and Chapter I Students

Grades 4, 7, and 10

Grade	Student Group	Statistic[b]	National Norm	Reading	Spelling	Language	Mathematics	Battery Total	Reference Skills	Science	Social Studies
4	All Students (n = 44,638)[a]	Median GE	4.7	4.4	4.6	4.6	4.6	4.6	4.8	4.4	4.5
		Mean SS		650.1	650.8	657.5	664.6	657.5	630.1	623.0	654.2
		Median NP	50	42.2	43.0	46.1	44.2	43.6	49.6	42.4	41.2
	Chapter I (n = 7,742)	Median GE	NA[c]	2.9	3.9	3.6	3.9	3.3	2.8	3.0	3.5
		Mean SS	NA	586.4	611.6	609.0	636.6	610.8	567.4	573.5	618.1
		Median NP	NA	17.0	21.7	19.9	22.7	16.8	21.8	19.9	19.9
7	All Students (n = 49,464)	Median GE	7.7	6.7	7.7	7.0	7.5	7.0	7.2	7.8	7.5
		Mean SS		713.6	700.4	694.5	708.2	705.6	700.6	700.1	703.5
		Median NP	50	40.9	48.5	43.8	44.5	41.8	42.0	49.7	47.5
	Chapter I (n= 4,113)	Median GE	NA	4.4	4.8	4.1	5.7	4.5	4.9	5.3	4.7
		Mean SS	NA	651.7	657.9	641.5	685.6	659.7	644.0	643.8	653.8
		Median NP	NA	13.2	17.3	15.6	16.8	12.7	19.0	18.8	21.0
10	All Students (n= 43,145)	Median GE	10.7	9.5	10.1	9.6	9.9	9.5	9.6	9.8	10.4
		Mean SS		756.1	729.1	719.0	728.0	734.6	741.4	722.6	736.6
		Median NP	50	33.2	42.8	39.7	40.7	37.9	32.3	42.2	45.9

[a] n = Total number of students completing any part of test battery.

[b] GE = Grade Equivalent
SS = Scale Score
NP = National Percentile

[c] CTBS/U national norms are not available for Chapter I students.

Table B.2

CTBS/U Spring, 1983, Percentages of South Carolina Students in Each Quarter of the National Normative Distribution
All Students

Grades 4, 7, and 10

Grade	Student Group	National Quarters[b]	Reading	Spelling	Language	Mathematics	Battery Total	Reference Skills	Science	Social Studies
4	All Students (n = 44,638)[a]	76-99	19.3	17.2	21.7	23.3	19.7	25.3	16.6	17.4
		51-75	21.7	23.8	23.5	20.3	22.7	17.7	24.7	24.5
		26-50	30.2	31.6	28.8	29.6	29.2	28.5	27.9	27.4
		1-25	28.8	27.4	26.0	26.8	28.4	28.5	30.8	30.8
	Chapter I (n = 7,742)	76-99	2.1	2.7	2.3	3.7	1.8	3.9	2.0	2.0
		51-75	5.6	8.8	7.4	7.9	5.5	6.3	7.2	7.3
		26-50	25.2	30.1	28.8	30.9	25.4	27.0	24.6	25.8
		1-25	67.1	58.5	61.5	57.5	67.3	62.8	66.2	64.9
7	All Students (n = 49,464)	76-99	17.4	21.4	20.8	20.2	18.8	19.1	18.4	25.3
		51-75	22.7	23.3	22.2	24.0	21.4	19.9	28.6	24.7
		26-50	28.7	28.8	28.7	26.6	29.6	38.0	27.9	26.9
		1-25	31.1	26.6	28.3	29.3	30.2	22.9	25.1	23.2
	Chapter I (n = 4,113)	76-99	0.6	2.1	0.5	0.6	0.3	0.5	0.7	1.3
		51-75	2.7	7.5	3.4	4.4	1.8	3.9	5.6	7.6
		26-50	15.9	26.9	21.7	22.9	16.3	37.9	27.4	31.3
		1-25	80.8	63.4	74.4	72.1	81.6	57.7	66.3	59.8
10	All Students (n = 43,145)	76-99	17.8	17.4	23.1	20.0	22.1	18.7	20.5	26.1
		51-75	18.4	22.3	18.8	22.3	18.0	22.4	24.4	21.8
		26-50	21.5	24.0	20.1	21.3	20.6	14.8	19.4	22.4
		1-25	42.3	36.3	38.0	36.5	39.3	44.1	35.8	29.6

[a]The symbol n represents the total number of students completing any part of the test battery.

[b]The national percentile ranges of 76-99, 51-75, 26-50, and 1-25 represent the upper, upper middle, lower middle, and lower quarters of the national distribution, respectively.

Table B.3

CTBS/U Spring, 1983 Percentages above 50th National Percentile
All Students

Grades 4, 7, and 10

Grade	Reading	Spelling	Language	Mathematics	Battery Total	Reference Skills	Science	Social Studies
4	40.9	41.0	45.2	43.7	42.4	43.0	41.3	41.9
7	40.2	44.7	43.0	44.2	40.2	39.0	47.0	49.9
10	36.2	39.7	41.9	42.2	40.1	41.1	44.9	48.0

APPENDIX C

CTBS/U SPRING, 1983, STATE MEDIAN NATIONAL PERCENTILES AND PERCENTILE DIFFERENCES FOR GRADES 4, 7, AND 10

Table C.1

CTBS/U Spring, 1983, State Median National Percentiles and Percentile Differences
All Students

Grades 4, 7, and 10

Skill Area	State Medians			Percentile Differences	
	Grade 4	Grade 7	Grade 10	Grade 4 and Grade 7	Grade 7 and Grade 10
Reading Total	42.2	40.9	33.2	-1.3	-7.7
Spelling	43.0	48.5	42.8	+5.5	-5.7
Language Total	46.1	43.8	39.7	-2.3	-4.1
Mathematics Total	44.2	44.5	40.7	+0.3	-3.8
Battery Total	43.6	41.8	37.9	-1.8	-3.9
Reference Skills	49.6	42.0	32.3	-7.6	-9.7
Science	42.4	49.7	42.2	+7.3	-7.5
Social Studies	41.2	47.5	45.9	+6.3	-1.6